

REMARKS

Claims 6, 8 through 11 and 27 are rejected under 35 USC 103 as unpatentable over Gehrer in view of Snelling. The examiner's characterization of Gehrer and Snelling is accepted for purposes of this response. Applicant respectfully submits however that it would not be obvious to one in ordinary skill in the art to combine the two references.

The invention relates to a roller assembly for use in transporting a sheet material through a nip formed between a roller and an opposed surface. Neither of the references relate to a roller for such an assembly. Gehrer relates to a roller for use in a conveyer or feed roller for conveying work pieces of different sizes along the work path from a supply point, past work zones in which the work pieces are treated, and to a delivery point. Gehrer provides a roller that is used in combination with a multiplicity of other rollers for conveying work pieces by permitting them to roll along the tops of the rollers. This is described in column 2, line 36 etseq where Gehrer says:

“Referring now to the drawing and to figures 1 and 2, in particular there is illustrated a preferred embodiment of the present invention which comprises a cylindrical shaft member on which a plurality of substantially identical or equally shaped angular roller elements are mounted adjacent to each other.”

The aim, as set forth in column 3, line 14 et seq is so that the conveyor roller is capable of readily engaging work pieces of widely varying size without there being any danger of damage either to the work piece, the roller or the mounting. Nowhere in Gehrer is there any suggestion that such a roller would be useful in a roller assembly used in transporting the sheet material through a nip. The difference is more than semantic. In applicant's invention, as clearly set forth in the written description thereof, it is a principle aim of the invention to reduce skew as sheet materials such as paper and printers, copiers or the like are transported through a nip. In order to reduce skew, it is important that the portions of the rollers that contact the paper move at the same speed across the width of the paper or skew will be introduced. One way to do this is to provide

shafts that are sufficiently rigid that they do not bend to any perceptible degree. This isn't practical in many applications. The present invention that uses rollers having a non-compliant outer layer fixed to a compliant core comprised of an open cell foam solves these problems.

The speed at which the rollers move is of no significance in Gehrer. The non-compliant outer layer assures that the linear speed of the roller at the nip remains constant and the compliant core made from open cell foam has low thermal histories and therefore generates relatively little heat when it is repeatedly flexed. Open cell foam dissipates heat more easily than closed cell material or any of the materials described in Gehrer. Gehrer uses rubber, a material clearly not selected for its low thermal histories.

Snelling, like Gehrer, relates to a roller used for a purpose unlike applicant's roller. It is essential in Snelling that the outer layer 14 be resilient and a piezoelectric polymer film is preferred (column 4, lines 50 – 54). Snellings roller wouldn't work with a non-compliant outer layer as claimed by applicant. Snellings layer relies on deformation to create a charge for transferring toner from a charge roller to a sheet of paper. Clearly there is nothing in Snelling that would suggest using a non-compliant outer layer because doing so would destroy the efficacy of Snelling. Since there is nothing in Gehrer that would suggest using an open cell foam, and such a foam would provide no advantage to Gehrer, the suggestion to combine these two references must come from applicant's invention and this isn't permitted.

Accordingly, applicant respectfully submits that even if the elements of applicant's invention are shown separately in the references, the suggestion to make the necessary combination is absent, the references in fact teach away from the combination, and therefore the rejection was improperly made and should be reconsidered and upon reconsideration withdrawn and the case passed on to allowance.

Respectfully submitted,



Stephen B. Salai, Registration No. 26,990
H A R T E R , S E C R E S T & E M E R Y L L P
1600 Bausch & Lomb Place
Rochester, New York 14604
Telephone: 585-232-6500
Fax: 585-232-2152